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Ogata et al.

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(54) **MULTIFUEL GAS TURBINE COMBUSTOR WITH FUEL MIXING CHAMBER AND SUPPLEMENTAL BURNER**

(58) **Field of Classification Search**

CPC F23R 3/34; F23R 3/36; F23R 3/346; F23R 3/286; F02C 3/22

See application file for complete search history.

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F23R 3/28 (2006.01)
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(57) **ABSTRACT**

To provide a multifuel gas turbine combustor capable of combusting gases containing hydrogen in a high concentration with a low NO_x while maintaining a low emission performance brought about by the pre-mixture combustion in the main burner, the gas turbine combustor includes a main burner (12) for supplying to and combusting a pre-mixed gas (M), containing a first fuel (F1), within a first combustion region (S1) of a combustion chamber (10), and a supplemental burner (20) for supplying to and combusting a second fuel (F2) of a composition different from that of the first fuel (F1) within a second combustion region (S2) defined downstream of the first combustion region (S1) within the combustion chamber (10). The first fuel (F1) is of a hydrocarbon system and the second fuel (F2) is a gas

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